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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/607,044  | 06/27/2003  | Ku-Hyun Park         | 053785-5126         | 6405             |
| 9629  | 7590        | 08/24/2005           | EXAMINER            |                  |
| MORGAN LEWIS & BOCKIUS LLP<br>1111 PENNSYLVANIA AVENUE NW<br>WASHINGTON, DC 20004 |             |                      | CALEY, MICHAEL H    |                  |
|   |             |                      | ART UNIT .          | PAPER NUMBER     |
|   |             |                      | 2871                |                  |

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |                                      |                                    |  |
|---|--------------------------------------|------------------------------------|--|
| <b>Advisory Action</b><br><b>Before the Filing of an Appeal Brief</b> | <b>Application No.</b><br>10/607,044 | <b>Applicant(s)</b><br>PARK ET AL. |  |
|   | <b>Examiner</b><br>Michael H. Caley  | <b>Art Unit</b><br>2871            |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 25 July 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: 1-20.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

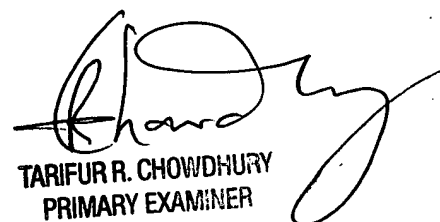
Continuation of 11. does NOT place the application in condition for allowance because:

Regarding the rejection of claims 1 and 11 as unpatentable over Nakamura '544 (U.S. Patent No. 6,137,554) in view of Nakamura '197 (U.S. Patent No. 5,744,197), Applicant first argues that the references fail to disclose the liquid crystal layer as "having a splay state when a voltage is not applied and having a bending state when a transition voltage is applied".

Nakamura, however, discloses the liquid crystal layer as used within an OCB mode display (Column 5 lines 20-35). It is generally known among those skilled in the art that the term OCB implies a splay state at zero voltage and a bending state at a transition voltage as defining features of this type of display mode. For example, Applicant's admitted related art describes such liquid crystal modes of operation in the conventional OCB mode display device (Paragraph 0006). As a further example to show the inherency of these features to the OCB mode, U.S. Patent No. 6,069,620 shows such features as conventional to OCB mode displays (Abstract, Background of the Invention).

Regarding Applicant's statement that Nakamura "discloses absolutely nothing regarding 'retardation R1, of the OCB type liquid crystal layer without a voltage applied (splay state) as from 0.8-2.0' ", retardation of a layer, such as a liquid crystal layer, is generally known to be defined as the product of index anisotropy and thickness of the layer (see U.S. Patent No. 5,093,739 to Aida et al. Column 2 lines 1-4). As used by Nakamura '554 and Nakamura '197, refractive index anisotropy is a physical parameter of the liquid crystal layer without an applied voltage and independent of voltage (Nakamura '554 Column 6 lines 44-51, Table 1). For example, the refractive index anisotropy remains constant for a range of driving voltages as shown in Table 1. Therefore, the product of the refractive index anisotropy and the thickness of the layer may be used to derive the retardation of the liquid crystal layer in the absence of a voltage.

Given that the retardation R1 may be defined by the product of the refractive index anisotropy and thickness of the layer, Nakamura '554 discloses a splay state retardation of 0.8-2.0. Nakamura '554 accordingly shows the first retardation value  $R1/\lambda$  as between 1.35 and 1.75: for  $R1 = 0.9$  for  $\lambda = 0.61 \mu\text{m}$  (red),  $(R1/\lambda) = 1.475$ .



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PRIMARY EXAMINER